



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF APPEALS AND INTERFERENCES**

Application No.	: 10/523,928	Confirmation No.:	1895
Applicant	: M. Kirst		
Filed	: October 17, 2005		
Title	: APPARATUS FOR DETERMINING AND/OR MONITORING A PHYSICAL OR CHEMICAL QUANTITY (AS AMENDED)		
TC/A.U.	: 2863		
Examiner	: T.S. Lau		
Docket No.	: KIRS3001 /FJD		
Customer No.	: 23364		

**BRIEF ON APPEAL**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA. 22202-3514

Sir:

**INTRODUCTORY COMMENTS**

Pursuant to the provisions of 37 CFR 41.37, submitted herewith is Applicant/Appellant's Brief on Appeal along with the required fee. The period for response has been extended to expire on October 12, 2007 by the filing herewith of a Petition for a two Month Extension of Time and payment of the required fee.

Any additional fees necessary for this appeal may be charged to the undersigned's Deposit Account No. 02-0200.

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**REAL PARTY IN INTEREST**

(37 CFR 41.37(c)(1)(i))

The real party in interest is Applicant/Appellant's assignee Endress + Hauser (DE) Holding GmbH. The assignment was recorded on October 20, 2005 at Reel 016918 and Frame 0103.

A name change was filed and was recorded on August 23, 2006 and reported at Reel 018165 and Frame 0382. The name change was to Endress + Hauser (Deutschland) AG + Co. KG.

**RELATED APPEALS AND INTERFERENCES**

(37 CFR 41.37(c)(1)(ii))

There are no related appeals or interferences with respect to the invention defined in this application.

**STATUS OF CLAIMS**

(37 CFR 41.37(c)(1)(iii))

Claims 13 - 35 are pending in this application.

Claims 13 - 35 have been finally rejected.

Claim 31 is objected to "as it is an improper multiple dependent claim

**STATUS OF AMENDMENTS**

(37 CFR 41.37(c)(1)(iv))

A REQUEST FOR RECONSIDERATION WITH AMENDMENT was filed after issuance of the Office Action of February 12, 2007.

The amendment was to claims 27 and 31 and were presented to correct their dependency. These amendments to claims 27 and 31 were entered by the Advisory Action dated April 13, 2007. And as a result of this amendment, the objection to claim 31 has been rendered moot.

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A notice of Appeal was then filed on June 12, 2007.

### **SUMMARY OF CLAIMED SUBJECT MATTER**

(37 CFR 41.37 (c)(1)(v))

(References are to page and line of the specification)

The invention described and claimed relates to an apparatus for determining and/or monitoring a physical or chemical variable in a process (pg 1, lines 3 - 5). In independent claim 13, at least one field device (2) is defined connected to a field bus (4) and to a fuel cell (9) (pg. 5, lines 21 - 24). The field device (2) determines at least one physical process variable and exchanges data regarding the physical process variable with a remote control station (8) via a data connection (6). The fuel cell (9) is located remotely with respect to the field device (2) and is electrically connected with the field device (2) (pg 5, lines 17 - 19). The fuel cell (9) supplies the required energy to the field device (2) (pg. 5, lines 21 - 22).

The fuel cell (9) is located removed from the field device (2) when the field device (2) is in a dangerous location. The remote location can be control room 8 (pg 5, lines 25 - 27).

### **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

(37 CFR 41.37(c)(1)(vi))

The abstract is objected to and consequently does not form a part of this appeal.

Claims 13 - 22 and 24 - 33 are finally rejected under 35 USC 102(e) over

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Fleckner et al.

Claim 23 is finally rejected under 35 USC 103(a) over Fleckner et al in view of Welches et al.

Claims 34 and 35 are finally rejected under 35 USC 103(a) over Fleckner et al in view of Breed et al.

### **ARGUMENTS**

(37 CFR 41.37(c)(1)(vii))

(1)

**Claims 13 - 22 and 24 - 33 are not anticipated by Fleckner et al under 35 Usc 102(e)**

For anticipation to lie, each any every positively recited element in a claim must be found in a single reference, *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). In the REQUEST FOR RECONSIDERATION WITH AMENDMENT, it was noted with respect to Fleckner et al that the examiner's discussion of Fleckner et al "fails to mention the mounting of the monitoring instrumentation and the fuel cells." In the Advisory Action of April 13, 2007, the examiner states on page 2 paragraph C. that unit 26 is "a remote control station"referring to paragraph [0035]. The examiner is mistaken. The "fuel cell's own electrical output may be.....from a remote location..." not the unit 26. Then at the bottom of page 3 and top of page 3 , the examiner states that the "data connection" is "unit 174." The data connection of claim 13 allows data transfer between the field device and the remote control station. Unit 174 does not achieve this purpose. It is connected to the A/D converter instead. Further, the examiner states on page 3, that the "field device" is the "fuel cell monitoring section" of fig. 9. How? It is not clear to applicant/appellant why the examiner believes that the fuel cell monitoring section of Fig. 9 is a field device.

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The above represents only three differences. Other exist but need not be considered specifically, because anticipation requires that there be no differences.

(2)

**Claim 23 is not unpatentable under 35 USC 103(a) over Fleckner et al in view of Welches et al**

Claim 23 depends from claim 13 and further defines a monitoring unit for issuing a warning report as soon as the energy supplied by the fuel cell falls below a predetermined value. As such, claim 23 includes all the elements of claim 13 plus the monitoring unit. For 35 USC 103 to apply then, requires that Welches et al teach the structure noted above and not found in Fleckner et al. It is respectfully submitted that it does not. Accordingly, to combine Fleckner et al with Welches et al serves no purpose under 35 USC 103. It makes little, if any, common sense to combine Fleckner et al and Welches et al under such circumstances, *KSR International Co. v. teleflex Inc*, 82 USPQ2d 1385 (US Sup. CT. 2007).

(3)

**Claims 34 and 35 are not unpatentable under 35 USC 103(a) over Fleckner et al in view of Breed et al**

Both claims 34 and 35 depend from claim 13 and states that the field devices use "ultrasonic waves" (claim 34) or "electromagnetic waves" (claim 35).

Like the discussion of claim 23, for 35 USC 103 to lie for claims 34 and 35, Breed et al must teach the structure noted above and not found in Fleckner et al, even assuming that Breed et al does teach what is recited in claims 34 and 35. Again, the necessary teaching is not found in Breed et al so that the combination proposed by the

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examiner must here also fail.

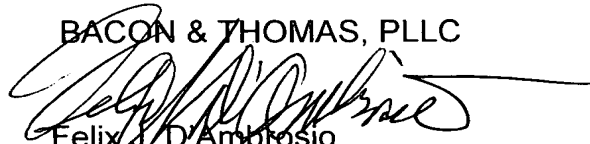
### CONCLUSION

The teaching basis to anticipate by Fleckner et al is lacking, and the teaching basis for combining Fleckner et al and Welches et al or Fleckner et al and Breed et al fails to provide what Fleckner et al alone lacks.

In view of the above, it is respectfully submitted that claims 13 - 35 should be allowed over the references of record and those applied.

Respectfully submitted

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Date: October 12, 2007

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**APPENDIX OF CLAIMS**

(37 CFR 41.37 (c)(1)(viii))

Claims 1 - 12 (Cancelled).

13. An apparatus for determining and/or monitoring a physical or chemical variable in a process, comprising:

a remote control station;

data connection;

at least one field device with a sensor for determining at least one physical process variable, said at least one field device exchanges data with said remote control station via said data connection; and

at least one fuel cell electrically connected with said at least one field device, wherein:

said at least one fuel cell at least partially covers the energy requirement of said at least one field device, and

said at least one fuel cell is arranged remotely from said at least one field device.

14. The apparatus as claimed in claim 13, wherein:

said data connection between the control station and said at least one field device is accomplished wirelessly.

15. The apparatus as claimed in claim 13, wherein:

multiple field devices are provided, which are electrically connected with said at

least one fuel cell.

16. The apparatus as claimed in claim 14, wherein:  
said data connection includes a field bus.

17. The apparatus as claimed in claim 16, wherein:  
said at least one fuel cell is connected with said at least one field device via  
said field bus.

18. The apparatus as claimed in claim 13, wherein:  
said at least one fuel cell is arranged in said control station.

19. The apparatus as claimed in claim 13, wherein:  
a first fuel cell and a second fuel cell are provided, and  
said at least one field device is connected, at least at times, with said first fuel  
cell and said second fuel cell.

20. The apparatus as claimed in claim 19, wherein:  
said at least one field device is connected, at least at times, with only one of the  
two fuel cells.

21. The apparatus as claimed in claim 13, wherein:  
multiple fuel cells are combined into a fuel cell package.



22. The apparatus as claimed in claim 13, wherein:  
said at least one field device is positioned in an area where there is danger of explosion.
23. The apparatus as claimed in claim 13, further comprising:  
a monitoring unit, which issues a warning/error report as soon as the energy supplied by said at least one fuel cell falls beneath a predetermined limit value.
24. The apparatus as claimed in claim 13, further comprising:  
a fueling unit, via which said at least one fuel cell can be fueled.
25. The apparatus as claimed in claim 13, wherein:  
said data connection between the control station and said at least one field device is accomplished via a data line.
26. The apparatus as claimed in claim 14, wherein:  
said data connection includes a two-wire line.
27. The apparatus as claimed in ~~the previous~~ claim 26, wherein:  
said at least one fuel cell is connected with said at least one field device via said two-wire line.

28. The apparatus as claimed in claim 22, wherein:

said fuel cell supply the field device with energy from a remote, safe location.

29. The apparatus as claimed in claim 13, wherein:

said at least one fuel cell is arranged in an explosion-protected zone.

30. The apparatus as claimed in claim 16, wherein:

said at least one fuel cell is connected with field bus via a connection line.

31. The apparatus as claimed in claim 30, wherein:

energy is supplied from said at least one fuel cell to the field bus via a connection line.

32. The apparatus as claimed in claim 13, further comprising:

a monitoring unit for said fuel cell, said monitoring unit signalling when a fuel supply of said fuel cell falls beneath a predetermined limit value.

33. The apparatus as claimed in claim 13, wherein:

said at least one field device is selected from a group consisting of: measuring apparatuses for determining a fill level of fill substance in a container, measuring apparatuses for limit level detection, measuring apparatuses for determining a flow rate, measuring apparatuses for determining a pressure in a line, measuring apparatuses for determining a pressure in a container, and measuring apparatuses for determining a

temperature of a medium.

34. The apparatus as claimed in claim 13, wherein:

said at least one field device uses ultrasonic waves for determining a fill level of fill substance in a container.

35. The apparatus as claimed in claim 13, wherein:

said at least one field device uses electromagnetic waves for determining a fill level of fill substance in a container.

EVIDENCE APPENDIX

There is no evidence being relied upon which was submitted pursuant to 37 CFR 1.130, 1.131 or 1.132.